

7969 - 297

9/16/2014

1/5



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

Craig D. Kleppe, Ph.D.  
BASF Corporation  
26 Davis Drive, PO Box 13528  
Research Triangle Park, NC 27709

SEP 16 2014

Subject: Label amendment to add new uses on grass pastures and rangelands in production of forage, silage and hay, as well as grasses grown for seed; associated with Tolerance petition 3F8192  
Product Name(s): *Kixor Herbicide Technical; Sharpen powered by Kixor Herbicide; and Heat powered by Kixor Herbicide*  
EPA Reg. Number(s): 7969-275; 7969-278; 7969-297  
Decision Number(s): 481309; 481310; 481311

Dear Dr. Kleppe:

The labeling referred to above, submitted in connection with registration in accordance with FIFRA section 3(C)(5), as amended, is acceptable, provided that you submit and/or cite all data required for reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Stamped copies of the approved labeling for these products are enclosed/attached for your records. At your next label printing, or within eighteen (18) months of the date of this letter, whichever comes first, you must incorporate this supplemental labeling into the main product labeling. If you have questions or concerns regarding this letter, please contact Beth Benbow at (703) 347-8072 or email at [benbow.bethany@epa.gov](mailto:benbow.bethany@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Kathryn V. Montague". The signature is fluid and cursive, with a large loop at the end.

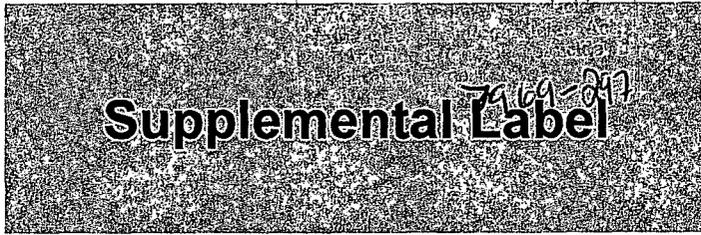
Kathryn V. Montague  
Product Manager 23  
Herbicide Branch  
Registration Division (7505P)

ACCEPTED

SEP 16 2014

2/5

Group 14 Herbicide



[Alternate Trade Name]

DETAIL™ POWERED BY KIXOR® HERBICIDE

For broadleaf weed control in perennial forage grasses grown in pastures and rangeland, or in fields grown for forage, silage, and hay production

This supplemental label expires August 31, 2017, and must not be used or distributed after this date.

Active Ingredient:

saflufenacil: N'-[2-chloro-4-fluoro-5-(3-methyl-2,6-dioxo-4-(trifluoromethyl)-3,6-dihydro-1(2H)-pyrimidinyl)benzoyl]-N-isopropyl-N-methylsulfamide..... 29.74%

Other Ingredients:..... 70.26%

Total: ..... 100.00%

Contains 2.85 pounds active ingredient saflufenacil per gallon formulated as a water-based suspension concentrate

EPA Reg. No. 7969-297

Directions For Use

- It is a violation of federal law to use this product in a manner inconsistent with its labeling.
The supplemental labeling and the entire Heat™ herbicide container label, EPA Reg. No. 7969-297, must be in possession of the user at the time of application.
Read the label affixed to the container for Heat before applying.
Use of Heat according to this labeling is subject to the use precautions and limitations imposed by the label affixed to the container for Heat.

Use Information

Sharpen may be applied for broadleaf weed control (refer to Table 1 and Table 2 on the product container label for list of weeds controlled) in perennial cool-season and warm-season forage grasses grown in pastures or rangeland for livestock grazing, or grown in fields for forage (green chop), silage, or hay production.

Before applying Heat to forage grasses, verify the selectivity of Heat on your variety with your local seed company (supplier) to help avoid potential injury to sensitive varieties.

Application Timings and Rates

Apply Heat only to established (defined as planted in fall or spring which has gone through a first cutting/mowing) stands of perennial cool-season and warm-season forage grasses.

Heat may cause transitory injury to forage grasses (leaf necrosis) under certain conditions, but new growth is normal and vigor is not reduced.

Disease, extremely cold weather, drought, extensive frost heaving, low or high pH, salinity, and other environmental pressures may weaken grass stands and make the crop more susceptible to herbicidal injury.

Dormant-season Applications for Burndown and Residual Weed Control in Warm-season and Cool-season Grasses

Apply Heat at 1.0 to 2.0 fl ozs/A as a broadcast burndown spray to emerged broadleaf weeds in the dormant season [i.e. when grasses are not actively growing in the fall (postharvest), during the winter dormancy period, or in the early spring before greenup]. An adjuvant system is required for optimum broadleaf burndown activity.

For additional residual broadleaf weed control, **Heat™ herbicide** can be applied anytime in the dormant season (as described above) at rates of 3.0 to 4.0 fl ozs/A.

Sequential applications of **Heat** may be made within the dormant season as long as the maximum cumulative amount does not exceed 4.0 fl ozs/A of **Heat**. Apply dormant-season burndown applications sequentially where the first burndown application is made fall (postharvest) or during the winter dormancy period, and the second application is made in the early spring before greenup. Separate sequential dormant-season burndown applications by at least 14 days.

**Specific Adjuvant Requirements for Dormant-season Applications in Warm-season and Cool-season Grasses.** For optimum postemergence control of emerged broadleaf weeds, the following adjuvants are required for use with **Heat**:

- Methylated seed oil (MSO) at 1% volume/volume (v/v) plus ammonium sulfate (AMS) at 8.5 to 17.0 lbs/100 gallons

### **In-season Postemergence Applications for Weed Control in Cool-season Grasses**

Apply **Heat** at 1.0 to 2.0 fl ozs/A as a broadcast postemergence spray to control emerged broadleaf weeds in season (i.e. actively growing cool-season forage grasses). Make in-season applications before weeds reach the maximum size listed in **Table 1** on the product container label. Postemergence applications require the addition of an adjuvant system.

**Specific Adjuvant Requirements for In-season Postemergence Applications in Cool-season Grasses.** For optimum postemergence control of emerged broadleaf weeds, the following adjuvant is required for use with **Heat**:

- MSO at 1% v/v

### **In-season Postemergence Applications for Weed Control in Warm-season Grasses**

Apply **Heat** at 1.0 to 2.0 fl ozs/A as a broadcast postemergence spray to control emerged broadleaf weeds in season (i.e. actively growing warm-season forage grasses). In-season postemergence applications can be made in the spring after greenup. Make in-season applications before weeds reach the maximum size listed in **Table 1** on the product container label. Postemergence applications require the addition of an adjuvant system.

**DO NOT** apply **Heat** in-season postemergence on Bahiagrass or buffalograss.

**DO NOT** exceed 1.0 fl oz/A of **Heat** in forage Bermudagrass and switchgrass applied in-season postemergence (i.e. after greenup) because higher rates may cause unacceptable grass injury.

**Specific Adjuvant Requirements for Postemergence Applications in Warm-season Grasses.** For optimum postemergence control of emerged broadleaf weeds, the following adjuvant is required for use with **Heat**:

- MSO at 1% v/v
- **DO NOT** add nitrogen-containing fertilizers when applying **Heat** to warm-season grasses.

### **Sequential Applications in Warm-season and Cool-season Grasses**

**Heat** may be applied as a sequential or split program where application(s) is made in the dormant season and subsequent application(s) is made postemergence in-season after greenup. **DO NOT** apply more than a maximum cumulative amount of 6.0 fl ozs/A of **Heat** per cropping season.

In-season postemergence applications of **Heat** may also be applied sequentially; separate sequential applications by at least 14 days. The maximum cumulative amount for in-season postemergence applications must not exceed 2.0 fl ozs/A of **Heat**.

### **Tank Mixtures**

Broad-spectrum control of grasses and/or additional broadleaf weeds will require a tank mix with another herbicide. Read and follow the applicable restrictions and limitations and directions for use on the other product label. The most restrictive labeling applies to tank mixes. **Heat** may be tank mixed or applied sequentially with other herbicide products.

### **Leafy Spurge Control**

**Heat** applied in tank mixture with **Plateau® herbicide** will control leafy spurge when applied late spring/early summer. This tank mixture will also control additional weeds listed on the respective **Heat** and **Plateau** labels.

Apply **Heat** at 1.0 to 2.0 fl ozs/A plus **Plateau** at 4.0 to 6.0 fl ozs/A to leafy spurge when it reaches the yellow bract (pre-bloom) stage in late spring/early summer. **DO NOT** apply this tank mix as a fall application because resultant control may not be satisfactory.

**Spray Additives.** Heat™ herbicide plus Plateau® herbicide tank mix requires the use of an effective adjuvant system. For best results, use nonionic surfactant (NIS) at 0.25% v/v plus AMS at 8.5 to 17.0 lbs/100 gallons [1% to 2% weight/volume (w/v)]. Crop oil concentrate (COC) or MSO may also be used with this tank mixture when injury (stunting, necrosis) to grasses is acceptable.

Heat plus Plateau tank mix may be applied by ground or air.

**Water Volume.** For ground application, use 10 or more gallons of water per acre. Thorough coverage of weeds is essential, and higher spray volumes may be necessary for better performance on a heavy population of leafy spurge. For aerial application, use 5 or more gallons of water per acre.

### **Crop-specific Restrictions and Limitations**

- **DO NOT** apply more than a maximum cumulative amount of 6.0 fl ozs/A of Heat per cropping season.
- For a mixed stand of cool-season and warm-season grasses, follow use directions for warm-season grasses when applying Heat in-season postemergence.
- **DO NOT** apply Heat to mixed stands of grass and forage legumes or to grass stands containing other desirable broadleaf species. Heat application will kill or cause severe injury to alfalfa, clover, other legumes, and most broadleaf species.
- There is no preharvest or pre-grazing interval for Heat-treated grass forage, hay, or pasture.
- **DO NOT** apply Heat to stands of annual forage (e.g. forage sorghum, Sudangrass).
- Refer to **Table 4** on the product container label for crop rotation intervals.

5/5

## Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.**

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.**

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.

1108

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The Chemical Company